



STRATEGIC PLAN

2019 – 2021

April 2020

THREE-YEAR STRATEGIC PLAN

The Challenge

Finding solutions to today's complex environmental and natural resource challenges demands robust, networked research and engagement across disciplines that have traditionally worked in isolation. The University of Montana (UM) and Montana State University (MSU) - and their respective affiliated campuses - offer a diverse array of environmental and ecosystem science programs, which account for a significant amount of the sponsored research and student interest on both campuses. The MUS has a strong commitment to environmental and ecosystem science, but research and education efforts are often confined to departments, colleges, and campuses. Few mechanisms or incentives currently support interdisciplinary initiatives or inter-institutional collaborations that bridge the traditional siloed academic structure.

The Solution

The Montana Institute on Ecosystems (IoE) is an opportunity to break down some of these barriers and, in the process, achieve greater visibility of Communities of Excellence and Grand Challenges identified at both universities and, at the same time, provide key scientific data to government agencies and the citizens of Montana. This statewide Institute is critical for Montana. We are moving into a period that requires rapid and informed decision-making and public engagement on a range of environmental issues. Sustainable pathways for Montana must consider the future of wild lands, freshwater ecosystems, agricultural lands, tribal lands, multiple-use lands, and growing urban areas, as well as the vital goods and services that these environments provide. By harnessing the scientific, technological and educational strengths of our universities and by drawing on the expertise of a diverse array of regional partners and stakeholders, the Montana IoE advances solutions for current and future environmental challenges consistent with the missions and visions of the MUS institutions.

Vision

Our vision is to catalyze collaboration and advance integrated environmental and social science research and education across the Montana University System. By sharing information on environmental challenges and solutions with our partners, state and federal agencies, NGOs, industry, and private landowners, we will promote social well-being and a clean and healthful environment.

Mission

The Montana Institute on Ecosystem's mission is to facilitate, produce, analyze and share science-based knowledge, addressing both environmental and natural resources challenges, in partnership with stakeholders in Montana and beyond.

Goal #1: Research

By 2021, the IoE will support collaborative research through sponsored workshops, MUS-wide faculty retreats and identification of funding sources.

We will accomplish this by:

1. Supporting at least 2 workshops per year to encourage cross institutional research group development that will result in grant submissions.
 - IoE will seek funding for the workshops.
 - IoE will have one call for proposals for workshops per year.
 - IoE will form a faculty proposal review committee to select workshops to fund.
2. A joint faculty retreat will be held Spring Semester (May) each year in a central location or alternate between Bozeman and Missoula.
 - IoE will seek funding for the retreat.
 - The retreat will include oral research presentations by joint university research teams and poster presentations by all.
 - Discussions and socializing will be emphasized to encourage team building.
3. The IoE website will create a weekly updated listing of environmental science ecology relevant grant program calls for proposals.

Goal #2: Scholarship

By 2021, the IoE will enhance graduate programs in integrated/integrative environmental sciences that leverage resources from across the MUS system and establish and lead graduate and undergraduate opportunities for research and scholarship on the environment.

We will accomplish this by:

1. Deploy a pilot faculty incentive program to develop cross-campus graduate programming, and establishing.
 - Establishing a joint-campus advisory board
 - Exploring cross-listing opportunities
 - Determine the feasibility of lab sharing experiences
 - Piloting a co-taught course on social-ecological systems
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- Developing a plan to determine target audience, credit hour requirements and allocation/instruction, curricular/delivery models, budget, participating departments and logistics
 - Pursuing NSF-NRT and related funding opportunities to kick start the project.
2. Increasing the number of undergraduate summer internships and/or research experiences to 10 at both UM and MSU per year.
 - Establishing a faculty review committee for the graduate and undergraduate summer internship/research experience.
 - IoE will seek funding for internships/research experiences.
 3. Establishing five graduate scholarships per institution per year.
 - Establish a graduate scholarship application review committee.
 - Identifying three NGOs in Montana that would be willing to work with the IoE faculty and students on a collaborative research project.
 - Engaging with graduate and undergraduate research conferences on the MSU and UM campuses.
 - IoE will seek funding for graduate scholarships

Goal #3: Organizational Capacity & Awareness

By 2021, the IoE will enhance its organizational capacity and brand awareness by having a physical presence on both the MSU and UM campus and a core of diverse faculty and students that understand and support the mission and vision of the IoE.

We will accomplish this by:

1. Having a room with furniture and phone number at the UM campus, presence in the UM Directory (phone book and buildings list at UC), and a link from UM web page.
 2. Securing a full-time staff person at UM
 3. A robust communications and outreach plan that includes:
 - Updates to the web site
 - Press releases to community/local papers
 - An active social media presence
 - A regular IoE newsletter with news about the research activity of IoE members
 - Tri-folds with IoE information and accomplishments
 - Marketing materials to distribute to students during orientation (and faculty orientation)
 - Sponsoring short informational talks about IoE and accomplishments/infomercials during professional meetings (e.g. AWRA, etc.)
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4. Elevating the IoE faculty and engaging and expanding the IoE community via:
 - Organizing regular IoE social gatherings with beer/wine & cheese
 - Sponsor “science-on-tap” series (Elser model), brewery/public informal seminars
 - Interpretive walks
 - Sponsor a seminar program with IoE focus (shared Rough Cut with MSU and UM)
 - Nominate a distinguished lecturer each semester (shared at UM/MSU)
 - Identify a distinguished professor each semester
 - Host 2 fundraising events each year. One at Flathead Lake Biological Station in the summer and one at Big Sky in the winter. The event would be a wine and cheese party with 2 topical presentations by IoE Distinguished professors.
 - Generate and execute seed grant funding for faculty

Goal #4: Annual Environment Report

The IoE has facilitated and/or produced a portfolio of synthetic and translational reports that respond to stakeholder priorities. In 2017, the IoE produced the Montana Climate Assessment (MCA), to synthesize, evaluate, and share credible and relevant scientific information about climate change in Montana. Our goal is to identify a key environmental issue in the state that is (a) of interest to stakeholders in the state, (b) of interest to faculty at UM/MSU, and (c) in need of synthesis/translation and to produce an annual report on key environmental issues.

We will accomplish this by:

1. Identifying resources for the annual report.
 2. Establishing a core working group of about 15 faculty, students and stakeholders that represent various perspectives and areas of expertise, to advise and develop the report.
 3. Identifying and hiring an IoE graduate fellow, a graduate student topic whose interests and goals align with the topic, to synthesize and help write the report.
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